

REMARKS/ARGUMENTS

The amendments and remarks presented herein attend to all outstanding issues in the pending office action of 24 March 2005. Claims 1-17 are elected for consideration on the merits. Claims 18-24 are cancelled without prejudice, and may be pursued in one or more divisional applications. Claims 12-17 are provisionally withdrawn.

Applicants have additionally amended the specification and drawings to correct informal matter, as detailed herein below, following the section entitled "1. Response to Restriction Requirement". No new matter is added with any amendment presented herein.

1. RESPONSE TO RESTRICTION REQUIREMENT

The Examiner has required restriction to one of two groups of claims defined as:

- I. Claims 1-17, and
- II. Claims 18-24.

Because Applicant is required to elect one of the above-referenced groups, Applicant elects, with traverse, claims 1-17 of group I.

The Examiner further requires the election of a single disclosed species. The species pertaining to Applicant's elected invention (I), as identified in the pending Office Action, are:

- 1a. Claims 2-4, drawn to the microchip,
- 1b. Claim 5-11, drawn to forming the socket;
- 1c. Claims 12-15, drawn to nonsolder base material; and
- 1d. Claims 16 and 17, drawn to a bonding solder.

Applicants traverse the requirement for election of species, at least because the Examiner does not establish reasons for insisting upon election, as required by MPEP 808.02. Furthermore, the Examiner states that claims 2-4 are drawn to a microchip; however, claim 2 clearly recites limitations for the step of *forming a socket* (see claim 2). Applicants believe that species 1a and 1b should be combined, and thus

respectfully request that species 1a and 1b be made a single species. Should the Examiner grant this request, Applicants would like to elect combined species 1a-1b.

Despite Applicants' contention that species 1a and 1b should be combined, Applicants are currently required to elect one of the above species. Applicants thus provisionally elect species 1b (claims 5-11). Claims readable upon species 1b are:

Claim 1 (generic);

Claims 2-4, also drawn to forming the socket (see above), and

Claims 5-11.

Claims 12-17 are withdrawn, without prejudice. The Examiner recognizes claim 1 as generic to all species 1a-1d of invention I. Applicant thus respectfully requests consideration of all of claims 1-17 upon allowance of claim 1.

2. AMENDMENTS TO THE SPECIFICATION AND DRAWINGS

In the Specification:

Paragraph [0035] is amended to change items 20A-20C from "connection pads" to "sockets" to be consistent with the term "sockets 20A-C" used in the last line of the paragraph. Reference numerals 21A-21C, also denoted as "sockets" but not appearing in FIG. 2, are changed to 20A-20C (in two places). "Sockets 20A-C" is changed to "Sockets 20A-20C" for clarity.

Paragraphs [0036] and [0037] are amended to change the term N to Φ for consistency with the term shown in FIG. 3.

Paragraph [0039] is amended to change "UBM layers 52A-52C" to "UBM layers 42A - 42C" for consistency with the term "UBM layer 42A" used in the last line of the paragraph. The identification of layers 42A - 42C as UBM layers is also consistent with UBM 27 in FIG. 2, UBM layer 81 in FIG. 8 and FIGs. 10A – 10E, and process sequence 90 illustrated in FIG. 9.

Paragraph [0040] is deleted.

Paragraph [0041] is amended to change "socket[s] 55" to "socket[s] 37C" for consistency with paragraph [0038]. "Sockets 47A, 47B" are changed to "sockets 37A, 37B" for consistency with "sockets 37A, 37B" of paragraphs [0038] and [0039], and to remove a conflict with "vias 47A-B" in paragraphs [0038] and [0039].

Paragraph [0042] is amended to change “PCB 60” to “PCB 48” for consistency with paragraphs [0038] and [0041].

None of the specification amendments adds new matter to the application.

In the Drawings:

Each of FIGs. 1-14 are amended to make cosmetic changes, including (1) elimination of certain shading, (2) replacement of certain shading with suitable black and white fill, (3) changes to text font and size, (4) adjustments to sizes of figures, and/or (5) adjustment of lead lines. In addition, FIGs. 1-5, 7A-B, 10B and 11-14 are amended to correct the following:

In FIG. 1, extraneous text is removed.

In FIG. 2, sockets 20A, 20B and 20C are labeled with arrows instead of lead lines.

In FIG. 3, the character Φ is replaced with the character N for consistency with the specification at paragraphs [0036] and [0037].

In FIG. 4, erroneous and/or unnecessary numerals 52A, 52B, 52C and 53 are removed and sockets 37A, 37B and 37C are labeled with arrows instead of lead lines.

In FIG. 5, socket 55 is relabeled as socket 37C and sockets 47A - 47C are relabeled as sockets 37A - 37C, for consistency with FIG. 4. Sockets 37A - 37C and 55A - 55E are labeled with arrows instead of lead lines.

In FIG. 7A and 7B, incorrect numerals 70 are removed, erroneous reference numerals 72 adjacent to lead lines of solder bars are replaced with numerals 70, and radius corners 73 are labeled with arrows instead of lead lines.

In FIG. 10B, labeling of socket 113 is clarified.

In FIG. 11, the orientation of the figure is changed, extraneous text is removed, and a box defining package 301 is provided.

In FIG. 12, the chart is changed from a 3-D bar chart to a 2-D bar chart and erroneously defined numerals 300A and 300B are removed.

In FIG. 13, extraneous text is removed and large shaded bullets are replaced with small black and white bullets.

In FIG. 14, extraneous text is removed and large shaded bullets are replaced with small black and white bullets.

None of the drawing changes adds new matter to the application.

In view of the above Amendments and Remarks, Applicant has addressed all issues raised in the Office Action dated 24 March 2005. The due date for submitting this Response to Restriction Requirement fell upon a Sunday, 24 April 2005. Per 37 C.F.R. §1.7, "*When the day, or the last day fixed by statute or by or under this part for taking any action or paying any fee in the United States Patent and Trademark Office falls on Saturday, Sunday, or on a Federal holiday within the District of Columbia, the action may be taken, or the fee paid, on the next succeeding business day which is not a Saturday, Sunday, or a Federal holiday.*" No fees are believed due; however, should any fee be deemed necessary in connection with this Amendment and Response, please charge Deposit Account No. 12-0600.

Respectfully submitted,

LATHROP & GAGE L.C.

Date: 25 April 2005

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AMENDMENTS TO THE DRAWINGS

The attached 14 sheets of drawings include changes to FIG. 1 through FIG. 14. These sheets replace the original sheets including FIG. 1 through FIG. 14.

ATTACHMENTS: 14 REPLACEMENT SHEETS